



2024 Eagle Hill Institute
Online Natural History Seminars

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Scaled Jewels: The Biology of Butterflies

Dr. Herb Wilson

August 8th–22nd, 2024

As the only insects with scales covering their wings, butterflies and moths are among the most colorful and beautiful insects. Butterflies play an important role in art, literature, music, spirituality and religion. Biologically, butterflies play vital roles in pollination, herbivory and provision of prey for many predators and parasites. We will begin with the features that all butterflies share and understand their place in the evolutionary tree of insects. We will discuss the paleontology of butterflies. The 19th century was an important period for butterfly study and we will discuss the early lepidopterists on whose shoulders we stand. Butterflies are currently classified into six families. We will learn the distinguishing features of each family and then learn some of the major groups of butterflies within each family. Undergoing complete metamorphosis, butterflies have complex life cycles, forcing us to understand all life stages to fully describe the life history of each species. We will discuss the process of metamorphosis in detail and appreciate variation in the process among butterflies. We will study the reproductive systems of butterflies, as well as their courtship and mating behavior. We will explore sources of mortality of butterflies, population dynamics, adaptations against predators, mimicry, symbiotic behaviors with other insects, migration, and biogeography. We will also consider conservation challenges and successes.

A portion of each class will be interactive. As time permits, the sharing of images by students will be encouraged. We will read some journal articles for class discussions.

Scheduling Details

August 8, 13, 15, 20 and 22

7–9 PM ET

Participants need to have a Zoom account (<https://zoom.us> sign up for zoom is free). You will receive a secure link to join the instructor before each class. Classes will be recorded so participants can review them or make up missed ones.

For more information regarding seminar costs and registration please visit:
<https://www.eaglehill.us/programs/sems-online/general-info.shtml>

About the Instructor

Dr. Herb Wilson (whwilson@colby.edu) is the David Arey Professor Emeritus in the Department of Biology at Colby College, Waterville, ME. Herb is an ecologist and evolutionary biologist who has used a variety of animals to answer ecological and evolutionary questions. He has published over 70 scientific articles on marine sand flat invertebrates, birds, dragonflies and butterflies. He is one of the authors of the recently published **Butterflies of Maine and the Maritime Provinces** (Cornell University Press). He was a co-director of the Maine Butterfly Survey, a 15-year citizen-science project that provided the data for the recently published book. Herb has had an interest in butterflies since he was in elementary school. Herb retired from Colby in 2019 after 30 years of teaching. He lives in central Maine in Waterville.

